

Amendments to the Specification

Please delete the current abstract and add the following abstract beginning at new page 18, line 1:

5

--ABSTRACT

A method of scanning lines in a display, a device for scanning lines and a portable electronic device including such a device scan lines consecutively for a set of scanning cycles and vary the selection of subfield from line to line in each scanning cycle such that subfields are selected in a consecutive order from line to line, no two consecutive line scans use the same subfield and no line is scanned using the same subfield twice during the set of scanning cycles.--

15

Please replace the paragraph beginning at page 3, line 20, with the following rewritten paragraph:

--In some embodiments, ~~Claims 3 and 10 are directed towards one variation of the invention, where~~ subfields are provided in staggered order, i.e. consecutively from line to line within a scanning cycle.--

20

Please replace the paragraph beginning at page 3, line 23, with the following rewritten paragraph:

--In some embodiments, ~~Claims 4 and 11 are directed towards another variation of the invention, where~~ a complete random selection is made of subfields form line to line.--

25

Please replace the paragraph beginning at page 6, line 12, with the following rewritten paragraph:

--Fig. 3 shows a basic gray level frame length control (FRC) scheme in which there are only three subfields corresponding to three different bits during a frame T_f . Each subfield here corresponds to a bit and the length of the subfield corresponds to the importance of the bit. This scheme is better described in EP application no. 02076071.6, which is herein incorporated by reference. Fig. 3 thus

shows a first subfield 28 having a certain length, a second subfield 30 having a longer length and a third subfield 32 having a third length, each provided during a separate scanning cycle. Note that only the addressed line time is depicted in the figure.--

5

Please replace the paragraph beginning at page 8, line 1, with the following rewritten paragraph:

--The video processing unit 46 then submits the high-resolution luminance values (5-6-5) to a data conversion device 48, which converts the high-resolution
10 luminance values to information suitable for driving the display. In order to do this the data conversion device 48 includes a conversion unit 56 and a control unit 58 controlling the conversion. This information is then supplied to a frame memory 49, which is controlled by a timing and control subunit 50. The timing
15 and [[a]] control subunit 50 reads out luminance information from the frame memory 49 and supplies these to a column driving unit 52 for driving the display 36. The timing and control subunit 50 also controls row drivers 54 to sequentially scan lines of the display. For each line scanned luminance information is supplied to the column driving unit such that the display 36 can be driven. The column and row driving units are thus connected to the display 36 for driving it. Previously
20 such driving has been done such that each section or subfield is provided within the same scan for all pixels from row to row. How it is done according to the invention will be described shortly.--

Please replace the paragraph beginning at page 10, line 20, with the
25 following rewritten paragraph:

--An alternative way of performing the method is shown in Fig. 14 ~~15~~. Here, the data conversion device 48 first converts the luminance values into m =six different subfields for each pixel of the display, step 106. Thereafter these subfields are all entered into the frame memory 49 in original order. The timing
30 and control subunit 50 then selects a first line of the display to be scanned, step 108. After this the timing and control subunit 50 sets a row counter $N=m$, i.e. to the number of subfields used, step 110, in order to define a set of lines within which the order of subfields may be varied. Thereafter the timing and control

subunit 50 selects a first previously unselected subfield for all pixels within the selected line, step 112, and supplies this subfield to the column driving unit 54 for a first line scan in a first scanning cycle, scan 0, step 114. For this first line n the first subfield 90 is driven for all pixels of the line. Then the line counter N is
5 decreased by one, step 116. If the scanning cycle is ended, step 116, i.e. if the last line of the display had been scanned during the scanning cycle, the timing and control subunit 50 starts a new scanning cycle, scan 1, step 120, returns to step 108 and selects a first line of this next scanning cycle, resets the line counter, step 110, and then continues with step 112 and selects another subfield which has not
10 previously been selected for the line, step 112, and scans the line while driving the selected subfield of all pixels in the line, step 114. If the scanning cycle was not ended, step 118, a further check is made if the line counter has reached zero or not, step 120. If the line counter has reached zero, step 120, the next line is selected for scanning, step 124 and the process returns to step 110 and resets the
15 line counter N, followed by new selection of a subfield for the next line. If however the line counter had not reached zero, step 120, the next line is selected and another subfield not used for previously selected lines within the set of lines and not previously selected for this line during an earlier scan cycle is selected, step 122. Thereafter the line is scanned while driving the pixels with the selected
20 subfield, step 114. In this way the method continues until all lines have been scanned with varying subfields. The method thereafter continues in above described manner for consecutive frames.--

Please replace the paragraph beginning at page 13, line 16, with the
25 following rewritten paragraph:

--This flicker can be reduced with a variation of the scanning from line to line according to the invention shown in fig. ~~13~~ 12. Here the subfields have been varied from line to line in the same manner as was done in fig. 9. During the first scan, scan 0, line n thus scans the first subfield 14, line n+1 scans the second
30 subfield 16, line n+2 scans the third subfield 18, line n+3 scans the fourth subfield 20, line n+4 scans the fifth subfield 24, line n+5 scans the sixth subfield 24 and line n+6 scans the seventh subfield 26. During the second scan, scan 1, line n scans the seventh subfield 26, line n+1 scans the first subfield 14, line n+2 scans

the second subfield 16, line $n+3$ scans the third subfield 18, line $n+4$ scans the fourth subfield 20, line $n+5$ scans the fifth subfield 22 and line $n+6$ scans the sixth subfield 24. This is continued in the same manner as in fig. 9 until the seventh scan, scan 6, where line n scans the second subfield 16, line $n+1$ scans the third subfield 18, line $n+2$ scans the fourth subfield 20, line $n+3$ scans the fifth subfield 24, line $n+4$ scans the sixth subfield 24, line $n+5$ scans the seventh subfield 26 and line $n+6$ scans the first subfield 14. This also thus reduces flickering. Note that the variations made to the frame length control scheme can of course also be made for this frame rate control scheme. An extra advantage is that the column switching is more homogenous and averaged over time, resulting in less cross-talk effects.--